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ABSTRACT

This monograph presents a completely theoretical analysis of data pertaining to professional laboratory experiences at the preservice level. The intention is to bring together in a useful pattern what is known and what is asserted about these experiences and to make specific functional proposals that, if implemented, may be conducive to enhancing the quality of professional laboratory experiences. The publication is divided into discussions of the definition of professional laboratory experiences; their purpose; their role; the characteristics of high quality professional laboratory experiences; principles that should govern them; theory; educational concepts underlying them; types (directed observation, participation, and student teaching); range; facilities; and forward-looking developments. A bibliography is included. (JA)

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PROFESSIONAL LABORATORY EXPERIENCES AT THE PRESERVICE LEVEL

by

Anne Richardson Gayles

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FOREWORD

That teacher education requires a carefully orchestrated series of theoretical and applied experiences long has been accepted. In recent years the assumption has become an article of faith among teacher educators. Laboratory experiences are not automatically positive and productive; they must be carefully planned as part of the total range of experiences, both prior and subsequent.

This clearinghouse-produced publication was conceived in consultation with the Society of Professors of Education. It provides an analytical overview of how to conceptualize and implement professional laboratory experiences.

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--Joel L. Burdin
Director

February 1974

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TOPIC: *Professional Laboratory Experiences at the Preservice Level.*

DESCRIPTORS TO USE IN CONTINUING SEARCH OF RIE AND CIJE:

Definitions
Educational Theories
Educational Trends
*Laboratory Training
Observation
*Preservice Education
Student Teaching
*Teaching Experience

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*Asterisk(s) indicate major descriptors.

INTRODUCTION

The public is demanding better-prepared teachers for today's democratic schools. Educators' response to this ultimatum is in the form of a critical reexamination of the teacher education curriculum. They are realizing that the preparation of teachers is truly a professional task and that teachers are measured by their ability to practice their profession successfully; that teachers must have control of the knowledge and principles upon which their practice is based; and that adequate control of knowledge and principles is developed in students through planned curricular experiences under capable guidance and direction. Therefore, the question confronting the educator is, What kind of teacher education curriculum will help prospective teachers to acquire the skills, competencies, and understandings they need to be effective in their teaching? The imperative in teacher education is to produce teachers of high professional competence.

The present monograph focuses upon the nature, characteristics, and significant role of professional laboratory experiences in the production of good teachers. The demonstration of connections between a beginning teacher's practice and any preservice professional laboratory experience is still the most challenging obligation in teacher education. This monograph represents a completely theoretical analysis of data pertaining to professional laboratory experiences at the preservice level. The intent is to bring together in a useful pattern what is known and what is asserted about these experiences and to make specific functional proposals that, if implemented, may be conducive to enhancing the quality of professional laboratory experiences.

DEFINITION OF PROFESSIONAL LABORATORY EXPERIENCES

"Professional laboratory experiences are all those contacts with children, youth, and adults in school and community, including observation, participation, teaching and other leadership activities that make a direct contribution to understanding of basic concepts and principles as well as individuals and their guidance in the teaching-learning process."[1]

At the preservice level, professional laboratory experiences refer to all deliberately planned educational experiences for prospective teachers that are designed to provide a wide range of opportunities for direct contacts with children, youth, and adults in school and community activities. These curricular experiences represent an integral part of all three aspects of a teacher education curriculum: general education, professional education, and specialization.

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[1] John G. Flowers and others, School Community Laboratory Experiences in Teacher Education (Oneonta, N.Y.: American Association of Teachers Colleges, 1948), p. 7.

THE PURPOSE OF PROFESSIONAL LABORATORY EXPERIENCES

Professional laboratory experiences are playing an increasingly important role in the preservice education of teachers. The major concerns of a program employing the experiences are to increase the prospective teacher's knowledge about the science and art of teaching and to develop his ability in the practice of teaching. Hence, the central purpose of professional laboratory experiences is a clinical study of teaching. Through this planned and continuously active program of highly individualized, meaningful, practical, and professional experiences, the prospective teacher will gradually assume responsibility for teaching.

The major aim of professional laboratory experiences is, as the name implies, to involve prospective teachers in a series of curricular activities in which they will have opportunities to perform as many tasks of teaching as possible--tasks that they will be expected to perform when they are employed in a full-time teaching position. For the performance of these tasks to be of maximum value to the beginning teacher, they should be performed under the capable direction and supervision of a master teacher in an on- or off-campus laboratory setting with proper and adequate physical, cultural, and human resources. These realistic professional experiences provide relevance and challenge in teacher education, as they bring about the fusion of educational theory and practice.

Professional laboratory experiences are designed to integrate educational theory and practice into a closer functional relationship and to promote the development of professional skill through systematic and continuous practice under the direction of qualified public school and college personnel. Therefore, it is within a program of professional laboratory experiences that theoretical understandings are practiced, tested, and refined and the need for new theoretical understandings and techniques for teaching and learning are developed.

ROLE OF PROFESSIONAL LABORATORY EXPERIENCES

Professional laboratory experiences play an important role in teacher education. Their function is to give the prospective teacher the opportunity to perform, under the direction and supervision of a master teacher, the major tasks of teaching. The prospective teacher should be involved in an adequate and effective series of learning experiences to help him a) further understand educational theory and principles; b) gain competency in applying educational theory and principles; c) acquire the ability to select, prepare, organize, and use instructional materials; and d) develop skills to evaluate objectively and competently. They should also help him understand and appreciate the role of education in a democratic society; the personal, social, intellectual, and moral qualities needed by a teacher in a democratic society; and the personal, social, emotional, and physical characteristics of the pupils to be taught.

Professional laboratory experiences should represent the core of a program for the preparation of teachers. They provide for direct experience which gives meaning to ideas, theory, and action. "Direct experience refers to the actual living through a situation or event. It implies direct association with and participation in an on-going activity".[2] This characteristic has caused educators to identify professional laboratory experiences as a major instructional procedure and a forward-looking innovation in teacher education. It is imperative that they should be the foundation for much of what we teach rather than merely a concurrent activity. The literature reveals that teacher education programs today generally include professional laboratory experiences as a part of or a concomitant to a particular course.

CHARACTERISTICS OF HIGH QUALITY PROFESSIONAL LABORATORY EXPERIENCES

The inherent characteristics of professional laboratory experiences that make a direct contribution to the student's understanding of educational theory, that involve the prospective teacher in interacting processes with pupils and adults, and that provide opportunities for the student to observe, participate in, and perform the major activities of teaching demand that teacher educators design a program of professional laboratory experiences which will afford opportunities for the following:

1. Student self-analysis and self-improvement;

2. Demonstration of educational theory in practice;

3. Student development of practical skill from the theory learned;

4. Variety and flexibility to provide for individual differences in students;

5. Student initiative and originality;

6. Continuity and unity of the entire long-term professional experience;

7. Student growth in professional ethics;

8. Student mastery of the tasks required of an effective teacher; and

9. Active student involvement that will afford opportunities for challenging, meaningful, and rewarding contacts with children and youth from all segments of society.

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[2]Florence B. Stratemeyer, "Issues and Prob ems in Teacher Education," Teacher Education for a Free People, edited by Donald P. Cottrell (Oneonta, N.Y.: American Association of Colleges for Teacher Education, 1956), p. 67.

If professional laboratory experiences are to serve their purposes in a teacher education program, they must be built around vicarious and direct experiences. The prospective teacher must be given an opportunity to perceive teaching acts or events with understanding; then he must be given an opportunity to become directly involved in carrying them out.

Problematic experiences should also be an integral part of the program. Teacher, pupil, and teacher/pupil activities should be structured in terms of the basic steps in problem solving. Be able to organize and direct professional laboratory experiences which promote critical thinking. Apply the problem-solving method to helping pupils learn to gather facts, analyze data through critical thinking, and make decisions on the basis of available evidence. The prospective teacher must be given an opportunity to search for new facts, try new ways of working, create ideas, appraise the merits of new ideas and facts; and to use the problem-solving method in solving personal, social, and professional problems.

The program of professional laboratory experiences should provide for real teaching-learning situations in which the prospective teacher will be able to observe teachers and pupils at work and assist them in classroom activities. He should also be able to teach a given group of learners, for which he will plan instruction, assume responsibility for carrying it out, and determine the degree to which the learners have achieved the objectives.

PRINCIPLES WHICH SHOULD GOVERN PROFESSIONAL LABORATORY EXPERIENCES

Professional laboratory experiences are essentially learning activities. Since learning is an active process and takes place through the activity and experience of the learner (the prospective teacher in this instance), a program of professional laboratory experiences must be an action program. Functionally speaking, it is the experience that results from the interaction of the prospective teacher with an environment designed to produce changes in his behavior that would reflect the qualities of an effective teacher.

The program becomes functional only when the work of the student is planned, organized, and directed as a learning exercise in a teaching/learning situation. The following is a fairly comprehensive list of principles that should govern professional laboratory experiences at the preservice level to assure a meaningful, systematic, and effective program:

1. Professional laboratory experiences should be an integral part of a teacher education curriculum: general, professional, and special.

2. They should occur continuously throughout the entire teacher education program.

3. They should be directly and functionally related to the goals and educational theory of a teacher education curriculum.

4. They should be planned in a graduated, logical, sequential manner according to the sequence of educational content within the teacher education curriculum.

5. Their nature should be determined by the needs and interests of the students in the program, the specific professional goals sought, and the equipment and resources of the laboratory situation.

6. Their length should be determined by the specific needs of the students and the unique characteristics of the laboratory situation.

7. They should be cooperatively planned by all participants: college personnel, students, and cooperating laboratory personnel.

8. They should include a wide range and variety of direct contacts with all kinds of learners in different situations.

9. They should be directed and supervised by both the college personnel and cooperating laboratory personnel.

10. Evaluation of the student's growth through laboratory experiences should be the joint responsibility of the college personnel, cooperating laboratory personnel, and student.

11. Professional laboratory experiences should be carefully supervised with appropriate guidance and assistance.

12. They should provide for intellectualization, whereby prospective teachers will be involved in laboratory situations that will help them to act consistently with the principles of learning and teaching that they have been taught and will help them to generalize from experience.

13. They should be organized and administered according to democratic educational principles, which would give rise to a program with the following attributes:

    Experimentation. Each student would be free to experiment and use unique approaches to design a creative teaching/learning process. Curricular experiences would be planned to afford each student teacher an opportunity to experiment, express himself, and work out, under wise guidance, effective instructional procedures.

    Equality of opportunity. Every student teacher would have an opportunity to achieve as much as his ability and effort permitted. The program would provide opportunities for all student teachers rather than for a selected few; a program that provides only for the intellectual elite is out of harmony with democratic principles.

    Participation by all persons involved in the program. The democratic process is enhanced when program policies are based on the combined judgments of all persons involved. It is only through meaningful participation that prospective teachers grow in the ability to function effectively in democratic group processes.

Teacher education personnel who recognize their responsibility for developing responsible, self-directing citizens will deliberately organize their professional laboratory experiences so that every prospective teacher will take a responsible role in the work of the program.

Faith in prospective teachers and cooperating personnel. Implicit in the program would be faith in the ability of students to make the right decisions when given adequate information and to become increasingly self-directing if given enough encouragement and guidance. Also implicit would be faith in teacher education personnel to make intelligent plans for the program when they are given sound leadership and sufficient time to do the job.

Respect for personality and human worth. Human beings are ends rather than means; therefore, the practices used in a program of professional laboratory experiences would be evaluated in terms of their effect on the prospective teachers involved.

Skills of cooperation. Prospective teachers must learn the skills involved in cooperation as well as those involved in competition if they are to be prepared for effective living in a society that involves both.

Opportunities for prospective teachers to acquire the skills, attitudes, and information that aid in the development of self-control and the free individual. Freedom is an essential quality of effective democratic living. A program that focuses upon producing teachers who are free is promoting the goals of democratic education.

THEORY UNDERLYING PROFESSIONAL LABORATORY EXPERIENCES

It is through a program of professional laboratory experiences that preservice teacher education students are able a) to apply what they have learned about the theory and application of the principles of human growth and development, culture, democracy, education, teaching, learning, methodology, and evaluation and b) to intellectualize their experiences in the academic fields. These experiences are designed to bring theory into practice, thereby enabling the prospective teacher to be involved in direct and vicarious experiences that give meaning to educational concepts, generalizations, and knowledge.

The program should consist of curricular experiences that will contribute directly to the prospective teacher's functional understanding of the characteristics of the learner, various processes of teaching, the complex process of learning, curriculum design and implementation, and characteristics of a high quality teaching/learning act. They should also aid the prospective teacher in a functional mastery of the content in the areas of general education and specialization.

It has been demonstrated that students can learn much through participation in carefully selected, carefully graduated, and carefully supervised and directed activities whose nature inherently pertains to the professional knowledges, skills, and content needed by an effective teacher. These carefully selected activities must relate to the content of general education, the academic fields, and professional education. The goals of teacher education may be achieved a) through general educational experiences that help the prospective teacher be an intelligent and effective citizen; b) through experiences in the academic fields that help the prospective teacher master the content to be taught; and c) through experiences in professional education that help the prospective teacher acquire the attitudes, knowledges, and skills necessary to practice the art of teaching. The precepts and concepts of general education, the academic fields, and professional education are vital to the goals of teacher education. They complement one another, while providing experiences that will produce mature personalities, effective citizens, and good teachers. Their contributions to teacher education can best be made through a continuous, long-term, systematic program of professional laboratory experiences.

Personnel in teacher education should capitalize upon the laboratory experiences that are inherently a part of the general education program of the prospective teacher. Since general education content concerns the problems, issues, and processes of everyday life, it is relatively easy to make functional use of the knowledge in laboratory situations in the school and the community. The various approaches to selecting, organizing, and presenting general education content in a meaningful and active manner have inevitably resulted in many general education experiences that are within themselves professional laboratory experiences.

Meaningful laboratory experiences in the academic fields quite often result from realistic efforts to intellectualize one's experience. As the prospective teacher attempts to describe and analyze his classroom experience, identify differences and similarities, focus upon major principles, see relationships among the various elements in the situation, and apply what he has learned in new situations, he is learning theory within the realm of action. Therefore, professional laboratory experiences in academic fields tend to prove theory in practice; hence, practice takes on meaning as theory. Direct experiences make it possible for theory to become a part of the real life-experience of the learner. Many of the theoretical and direct experiences in the academic fields contribute directly to the goals of teacher education. Conscious efforts must be made by teacher educators to identify and capitalize upon these relevant experiences.

Pertinent laboratory experiences in professional education are absolutely necessary. The prospective teacher must have direct experience with observing and carrying out the processes of teaching. Systematic and continuous efforts must be made a) to utilize instructional strategies that will tend to result in functional rather than abstract learning; b) to plan curricular experiences that will provide many opportunities to observe professional theory in action and put the theory into action; c) to utilize a wide variety of human, cultural,

and physical resources in the teaching/learning processes that are concerned with theory that pertains to the immediate and continuing life situations in which the prospective teacher has to play a role; d) to utilize in a realistic and active manner relevant content from many disciplines in order to help the prospective teacher fulfill the many and varied goals of professional education, especially as they relate to the contributions of general education and the academic disciplines to the goals of teacher education; and e) to institute curricular organizational patterns that will focus upon societal problems, issues, and realities in terms of the nature of the democratic society, the role of education in society, the characteristics of learners, and the characteristics and principles of the processes of learning and teaching.

College classes in general education, the area of specialization, and professional education may represent professional laboratory experiences. Teacher education personnel should plan for every class to be an effective laboratory experience in the application of educational and professional theory. In this connection students should be given periodic opportunities to observe, describe, analyze, and evaluate objectively their processes of teaching and learning in terms of sound educational theory and practice. Focus should always be upon the meaningful interaction between theory and practice.

The bodies of theory in general education, the academic disciplines, and professional education that are related to the goals of teacher education are related functionally; they complement one another in the process of preparing teachers. First, the content of general education is basic to achieving individual and social goals, which in turn is basic to becoming an effective professional worker. Secondly, acquisition and mastery of content to be taught is only possible through active involvement in the experiences offered by the academic fields. They, too, contribute to personal and social competencies needed by the effective teacher. Finally, professional education focuses upon the processes of teaching and learning. Mastery of professional theory is based upon the ability to reason, which is a direct product of experiences in general education and the academic disciplines. In the latter areas the prospective teacher received rigorous discipline in logic and scientific thinking; he learned to generalize from experience--to intellectualize his experience. Through the process of intellectualization the prospective teacher is able to have direct experience and become personally identified with the activity and situation. Direct experiences help to produce teachers who act according to principle rather than practice.

Thus, professional laboratory experiences are specifically designed to help students put theory into practice. They provide direct and vicarious experiences that, in themselves, give meaning to ideas and action.

EDUCATIONAL CONCEPTS UNDERLYING PROFESSIONAL LABORATORY EXPERIENCES

- Learning is an active process: one learns only to the extent to which one participates in the process of learning. The prospective

teacher must be actively involved in what is going on in the program of professional laboratory experiences.

• Gradation of experiences is important. Learning must proceed from the simple to the complex and from the single unit to the total.

• Knowledge of success in learning is important. The prospective teacher needs to experience success. It is necessary for the student teacher to succeed and to have him see this success almost immediately so that he has the knowledge of success as a powerful incentive for learning.

• Learning is a continuous process; it must be an unbroken series of successes for the prospective teacher. Learning must be analyzed into such minute parts and subparts that the prospective teacher progresses automatically.

• Motivation is essential in the learning process. If a prospective teacher is to profit from a program of professional laboratory experience, he must be convinced that it is meaningful and challenging--that it will help him achieve his professional goals.

• Learning is more efficient when it is related to pupil purposes. The activities in which prospective teachers engage in a program of professional laboratory experiences take on unity and meaning when they are closely related to purposes that are realistic to prospective teachers.

• Individuals learn several things at once. Prospective teachers may learn many things in a given situation. Student learnings that are supposed to be incidental to the main task are often as important as the material to be learned. Concomitant learnings should be regarded as highly important in a program of professional laboratory experiences. The personality effects that result from such learning experiences are of prime importance in the production of effective teachers.

• Individual differences among people have been long recognized. Professional laboratory experiences for the prospective teacher must be planned and administered so as to permit each student teacher to find the group, subject, procedures, and activities that are best suited to his interests and abilities.

• Growth and learning are continuous. Teacher education personnel should give more attention to what the prospective teacher already knows when he enters the program of professional laboratory experiences and should make greater efforts to relate the expected learnings in the program to those that have already taken place.

• Learning involves the modification of behavior rather than merely the acquisition of knowledge and skill. A professional laboratory program should focus upon behavioral objectives and performance-based experiences as they relate to the knowledges and technical skills needed by an effective teacher.

• Individuals learn best through lifelike experiences. A program of professional laboratory experiences should focus upon situational learning, that is, learning in the exact situation in which the learning is to be used. The best learning situation for prospective teachers is one in which they participate, under the guidance of teacher education personnel, in activities that represent or are directly related to the processes of teaching within the context of a teaching/learning environment.

• Individuals learn best when tasks are adjusted to their maturity levels. A program of professional laboratory experiences should be so organized and administered that every student teacher will be given an opportunity to engage in professional experiences whose activities and assignments are within his maturity range physically, socially, emotionally, and intellectually. Rather than expect more of a student teacher than he is mature enough to accomplish, the teacher educator should challenge a student teacher to work up to the limit of his capacity in the process of acquiring the knowledges and skills needed of an effective teacher.

• Learning is problematic. Professional laboratory experiences should focus upon the cognitive process of reasoning. Learning that involves reasoning makes use of concepts in problem solving. Like other cognitive processes, reasoning depends upon previous learning.

• Concepts are the products of learning; they are the retained and organized effects of past experience. Concepts are learned through a succession of relevant experiences incorporating the concepts to be learned. A program of professional laboratory experiences should be made up of curricular experiences directly related to the tasks of teaching and the process of learning.

• Learning is creative. Professional laboratory experiences should provide guidance and assistance in helping the prospective teacher break away from old ways of perceiving and reject hypotheses that are directly transferred from previous learnings. He must learn to solve important problems by using familiar materials and methods in new ways. He must break into new lines of activity that might not have occurred to him before.

TYPES OF PROFESSIONAL LABORATORY EXPERIENCES

There are three types of activities that are provided in a program of professional laboratory experiences: directed observation, participation, and student teaching. Through these sequential activities, the prospective teacher is brought into direct involvement with the practice of teaching. They are designed so that the teacher in training will have a logical and gradual induction into observing and carrying out the many and varied performances of teaching.

The three types of experiences should focus upon all phases of the teacher's activity in connection with the school, both curricular and

extracurricular. They should provide for the student's gradual induction into teaching responsibilities, beginning with routine tasks and proceeding into the more advanced phases of teaching. If the professional laboratory experiences are many and varied, the prospective teacher will be better prepared to carry on the professional activities demanded of him in an actual teaching situation. The exact extent and quality of such experiences are determined by the adequacy of preparation provided for the student throughout the four-year program in teacher education.

"Directed observation" consists of deliberately planned professional experiences in which prospective teachers will have opportunities to observe master teachers put educational theory into practice. Therefore, observation may be said to include all activities in which the student is merely an onlooker. Observational experiences are very important in bridging the gap between theory and practice. Experiences in observing, recording, studying, and analyzing information about the learner and the process of teaching and learning enable the student to acquire increasing knowledge and skill in the area of teaching effectiveness.

"Participation" represents that phase of the professional laboratory program in which the prospective teacher helps and works with the regular classroom teacher in carrying out teaching and learning activities. It offers a gradual induction into teaching.

The student teaching phase constitutes the period of guided teaching during which the student takes increasing responsibilities for the work with a given group of learners over a period of consecutive weeks. The student works with pupils, either individually or as a group. It is during this period that the prospective teacher will have actual experience with all the major activities of a teacher; he will have an opportunity to synthesize and apply the theoretical learnings received through course work, thus making such learnings more valuable to him.

Student teaching is one of the most beneficial phases of preservice education because it serves as a laboratory for testing ideas: it is here that the student encounters the realities of classroom teaching and learns to teach by teaching. Student teaching is based upon the principles of learning that imply that one learns by doing; that a learner's chances of learning are increased when he has opportunities for and assistance in the discovery of facts, relationships, and generalizations; that the possibility of retention of learned material is increased when the learner practices his learnings immediately, frequently, and in varied situations; and that a learner's chances of learning are increased when the material to be learned is meaningful to him.

Student teaching activities are many and varied: planning and directing class activities, evaluating class work and determining the progress students are making towards the realization of objectives, and maintaining discipline. In short, the student is teaching.

RANGE OF PROFESSIONAL LABORATORY EXPERIENCES

Throughout the preservice period, laboratory experiences should offer a wide variety of experiences. They should be planned in all three areas of the prospective teacher's preparation--general, academic, and professional. These phases should give support and direction to each other; their functional interrelationships should provide the basis for a planned synthesis of the elements of teaching.

Learning to teach follows a developmental sequence; therefore, the program of professional laboratory experiences, as the integrating experiences in teacher education, should be planned and implemented in developmental sequences according to the theory of teaching. The sequences must be of sufficient duration and differentiation to provide the prospective teacher with adequate opportunity to observe, study, analyze, and interpret the various processes of learning and teaching. They must help the student experience the major responsibilities of teaching within the proper context of time and place and to become self-directive in the process. Therefore, professional laboratory experiences should begin early enough to allow for gradual involvement in guided teaching, culminating with full-time student teaching in which the prospective teacher can carry out responsibility for a group of learners for a continuing period of time.

Laboratory experiences should provide involvement in a variety of situations, with individual children and with children in groups. Direct and indirect experiences should be planned so that students can observe and analyze the same concept and principle in operation with different age groups, in different subject areas, and in different school situations. Therefore, the activities to be structured for observation, participation, and student teaching must represent a fairly comprehensive range of professional laboratory experiences that will be characteristic of the major tasks of teaching. They should help the prospective teacher understand the needs, characteristics, problems, and developmental tasks of children and youth; the community in which the pupils live; the nature and principles of learning; the nature, processes, and characteristics of teaching; the steps in effective instructional planning such as identification of educational objectives, selection and implementation of appropriate content, activities for classroom presentation, instructional procedures, materials and resources, and the selection and utilization of appropriate devices for evaluating pupil progress; and the responsibilities and challenges of a creative teaching/learning process.

Professional laboratory experiences refer to all direct experience in teacher education; they are educational experiences designed to provide realistic settings for the various components of the formal educative process. They should be an integral part of a teacher education curriculum throughout the four years; they should be supervised by both a professional practitioner and a member of the teacher education faculty at the college.

FACILITIES IN PROFESSIONAL LABORATORY EXPERIENCES

Facilities should be determined by the specific purposes to be achieved; the number of students to be served; the number of available qualified resource people to whom students can be assigned; and the unique personal, social, physical, and emotional needs of the students in the program.

The range of facilities includes campus laboratory schools, off-campus laboratory schools, off-campus public schools in the local community, off-campus public schools in surrounding communities, and off-campus centers.

These laboratory facilities provide professional experiences that are carefully selected, carefully graduated, and carefully supervised and directed. Specifically, they offer teacher education personnel opportunities for the following:

1. Classroom observation;
2. Observation of superior teaching (teaching in general and specific teaching processes);
3. Observational experiences involving research and experimentation in teaching and learning;
4. Observation and analysis of educational innovations in practice;
5. Observation of the use of major educational equipment and facilities;
6. Observation of selected educational demonstrations and illustrations pertaining to pertinent aspects of the teaching/learning act;
7. Active participation in the various phases of the educative process;
8. Supervised student teaching through personnel who cooperatively serve the school district and the teacher education institutions; and
9. Field work, research, and in-service education related to certification and graduate degrees.

The facilities also offer the following services:

1. Provide information to institutions pertaining to teacher shortages, needs, and recruitment problems;
2. Recruit future teachers; and
3. Provide professional aid to new teachers.

FORWARD LOOKING DEVELOPMENTS IN PROFESSIONAL LABORATORY EXPERIENCES

It is probably true that there never has been more discussion of a program of professional laboratory experiences and its needs, in teacher education, than at the present time. This active and probing discussion has led to some forward looking changes, which will be considered in this section.

Tutorial and Clinical Program

The tutorial and clinical program represents a comprehensive and imaginative attempt at innovation in teacher education; it has resulted from a growing emphasis on experiences prior to practice teaching. In this program all professional instruction is given through tutorials and related clinical experiences rather than through formal course work. Prepractice clinical experiences begin in the freshman year with classroom visits and dialogues with the teacher and progress--through volunteer work with community agencies, attendance at school board meetings, teacher aide experiences in schools, and school-based research work--to the actual student teaching period in the senior year. The emphasis in this program is upon learning by doing: the student is involved in a wide variety of processes that focus upon demonstrating educational theory in practice as it occurs in an effective teaching/learning process.

Interaction Analysis

Systematic observation and quantification of teacher-pupil classroom behavior holds great promise in helping to reduce the theory of effective teaching. Analytical evaluation of verbal and nonverbal behavior in the classroom provides an opportunity for learning at an objective cognitive level that, with ensuing practice, can lead to improved teacher behavior. This type of professional laboratory experience, through video tapes, tape recordings, and films, enables the prospective teacher to improve his teaching behavior.

This series of clinical experiences is integrated in small-group tutorials with professional and liberal study in which each student is engaged. The key persons are the tutorial professor, a clinical professor, and a master teacher from a local public school. The tutorial professor is the most important because from his day-by-day contacts with the students, individually and in small groups, come the problems and issues that generate for students and staff the problematic situations for learning.

Intern-in-Team Program

The intern-in-team program provides an opportunity for the prospective teacher to assume a full-time teaching position as a member of a teaching team which may number from two to ten people. The internship lasts for one semester, and the major supervision and evaluation of the intern is handled by the team members. The program is based

upon a carefully planned series of clinical experiences. The two major advantages of the program are team planning and team criticism of teaching performance. The interns, usually assigned in pairs, assume responsibility for their classrooms and develop their own programs, with an experienced teacher available for guidance. The plan is designed to offer students greater opportunities for more meaningful experiences than traditional student teaching experiences.

Student Teaching Center

The student teaching center is a cooperative educational arrangement between one college or university (or several colleges and universities) and a public school system that provides professional laboratory experiences for students in teacher education. The center carries on the dual role of educating children and preparing teachers; therefore, the staff includes persons who are master classroom teachers and who possess strong knowledge of, and capabilities in, teacher preparation.

The teacher education center provides a variety of guided teaching opportunities for a large number of students concentrated in one place. The prospective teacher is not assigned directly to full-time work with a single classroom teacher; he is assigned tasks with other teachers in the center as individual growth needs become identified. The majority of the teacher education personnel works directly with student teachers on a continuing basis; they provide professional growth opportunities for the student teaching clientele. They, in turn, have numerous opportunities for growth.

The center is organized to provide professional growth facilities that are well beyond those found in the typical school. These include a professional library and access to audio taping and video taping equipment, opportunities for microteaching exercises, simulation processes, and the like. Field seminars and frequent conferences of student and staff are readily possible in the center situation.

Supervision of student teaching is much more continuous in a center than in a noncenter. A center coordinator works full-time with student teachers and the center staff. The coordinator represents both the college or university and the local schools. No direct supervision by the college is necessary.

The Intensified Clinical Core Program

The intensified clinical core program makes student teaching the center of the teacher education program; student teaching is no longer an adjunct to teacher preparation.

The program has the following characteristics:

1. Educational theory that pertains to effective teaching is identified and arranged into developmental sequences of behavioral objectives and accompanying curricular experiences.

2. The progress of the student teacher depends upon his demonstrated success in achieving identified objectives rather than on his accumulation of semester-hour credits.

3. An individualized teacher education program is based on diagnosis and utilization of the prospective teacher's strengths and upon an assessment of his weaknesses and provision for their correction.

4. Opportunities for mastering educational theory, which makes for effective teaching, are extended over a longer period of time than is now devoted to laboratory experiences.

5. Laboratory experiences are integrated with reorganized course work, seminars, and group discussion.

6. All avenues of professional growth are supplemented by the latest audiovisual media and processes, including self-evaluation via video tape.

Semi-Professionals and Teacher Education

Semi-professionals, properly trained, can help raise the quality of preservice education by giving the elementary and high school classroom teacher an opportunity to plan for, implement, and supervise a large variety of professional laboratory experiences for the prospective teacher. With the aid of these people, the classroom teacher may have many opportunities to demonstrate theory in practice and to design experiences through which the prospective teacher will become actively involved in putting educational theory into practice. Through the utilization of this human resource individualized instruction is possible. An individualized teaching behavior process involves the prospective teacher in many pertinent experiences that focus upon major aspects of teaching. Individualized teaching for classroom pupils will easily shift over into individualized supervision of professional laboratory experiences, which in itself will facilitate the personal, professional growth of the prospective teacher. Among the strengths of teacher aides are their knowledge of the community and its people, their warm personal relationships with parents, and their capacity to serve as a bridge of communication between middle-class teachers and the disadvantaged neighborhood. These strengths make community resources a valuable means of expanding the number, variety, and quality of professional laboratory experiences for the prospective teacher.

Team Teaching

Student teaching programs are utilizing team teaching, which is, in part, a vehicle for improving relationships between the student teacher and supervising teacher. The resultant openness in communication, confidence, security, and trust allow for viewing all aspects of the teaching situation from a scientific and objective approach. Team teaching also allows the supervising teacher to be a partner of the student teacher rather than an observer. This procedure tends to be more growth producing.

Videotaped Microteaching

Videotaped microteaching provides a setting for a program of professional laboratory experiences wherein the prospective teacher will become committed to the importance of the teacher as a critical inquirer into his own behavior and that of his pupils and peers.

Utilization of Experienced Teachers as Resource Persons

Experienced teachers of neighboring school systems are utilized by teacher education institutions as resource persons to assist the prospective teacher in understanding educational theory and in putting it into practice. These resource persons often demonstrate, in realistic settings, major teaching skills and processes.

Simulation

Simulation techniques are being used in programs of professional laboratory experiences to meet the need for realism as well as to provide settings in which the prospective teacher may practice a wide range of teaching behaviors without the fear of censure or failure. In fact, simulation of conditions in schools is being used extensively as a substitute for actual visits to schools and classrooms.

Developmental Student Teaching Program

A developmental student teaching program starts in the first year of college and increases both in time and professional level over four years to include a) orientation, b) observation, c) student teaching, and d) instructional analysis.

Year-Round School Plan

Under the year-round school plan, the learning opportunities are expanded because teacher educators have a longer period of time in which to work with the prospective teacher.

Full-time Student Teaching

There are two kinds of student teaching programs: those with full-time experience and those with part-time experience. Full-time experience creates a superior program because it allows for a greater number of realistic professional laboratory experiences for the prospective teacher.

Teacher Education or Student Teaching Councils

The councils are being used as a means of involving public school personnel in planning and executing a program of professional laboratory experiences. This kind of involvement tends to facilitate communication and promote meaningful understanding between public school and college personnel.

The Use of New Media and Technology in Teacher Education

Through the use of programmed instruction, films, tape recorders, slides, educational television, and video tape recorders, theoretical learnings have been reinforced.

Team Supervision in Student Teaching

Team supervision in student teaching is a developing, cooperative venture that promises to produce more competent and effective teachers. Since more than one person is involved in supervision of the prospective teacher, different opinions of what constitutes good teaching can be discussed more freely than when one person supervises. If the prospective teachers are part of the team, they can share and face problems and learn to accept success and failure realistically. By observing regular teachers as members of the supervision team, the student teacher is able to develop skills in observation and analysis of teaching.

In this approach supervision is utilized as a "form of teaching." It is based upon systematic observations, individualized instruction, interaction analysis, and personalized supervision.

In-service Education for Personnel in Programs of Professional Laboratory Experiences

Quality professional laboratory experiences cannot be achieved unless those who direct and supervise are assisted in preparing themselves for such responsibility. Appropriate in-service education activities should be planned by personnel from colleges, elementary and secondary schools, and the state department of education. In-service education programs are designed to keep the cooperating personnel intellectually alive and alert, motivated, and professionally informed--a design that will also continuously improve guidance, supervision, and leadership in the area of professional laboratory experiences.

Activities of an in-service education program should focus upon helping the cooperating personnel to understand the prospective teacher--his characteristics, needs, purposes, and problems--and to provide a realistic orientation to teaching for the prospective teacher. Attitudes, knowledge, and skills needed for induction into teaching should become the core of the in-service education program. Emphasis should be upon experiences that would provide opportunities a) to observe the school functioning as a basic social institution in a community; b) to use the child development approach to learning and teaching; c) to observe the teaching/learning act as a whole and identify its specific processes in action; d) to identify the specific and primary tasks of teaching; and e) to learn, by doing, the functions to be performed in fulfilling the primary tasks of teaching.

Competency-based Teacher Education

Competency-based teacher education is a significant, growing movement in education; it embraces many and varied innovations in the area of curricular organization and methodology. The educational strategies

suggested by these innovations are directed towards developing a teacher education program based upon the following characteristics:

1. Clearly stated objectives derived from roles;

2. Predetermined, specified performance goals, mastery levels, and modes of assessment;

3. Modularized instruction in which modules, representing different sets of learning activities are designed to promote the student's acquisition and demonstration of specific teaching competencies;

4. Individualized and personalized instruction in which the focus is upon the total personal, social, and professional development of each student in terms of his characteristics, needs, problems, developmental tasks, and level of maturity;

5. Assessment of a student's progress in terms of his ability to demonstrate mastery of specific, predetermined teaching competencies, i.e., the student is held accountable for his performance;

6. Established procedures for permitting a student to progress at his own rate--completing assignments (with many alternatives and options) when he is able to demonstrate that he can perform according to the professional roles and competencies implicit in the assignments;

7. Systems approach, wherein a collection of interrelated and interacting program components are developed into an integrated, functioning whole (sequential activities) and managed by elements of systems technology so as to attain predetermined performance goals;

8. Continuous evaluation of the program in which all participants are involved: feedback about the program guides the learning experiences of the student and the revision process (which, itself, is focused upon the exit requirements, or mastery of predetermined professional competencies); and

9. Field-centered program in real school settings in which the student participates in carrying out the teaching/learning processes with a given group of learners and in which he is held responsible for the complete process of teaching a particular group of children or youth over a sufficient period of time.

The field-centered component of the competency-based teacher education program is one of its most promising advantages. Through it, the student is given many and varied opportunities to put educational theory into practice--to learn by doing. This active involvement in the teaching/learning process facilitates mastery of predetermined professional competencies. Immediate feedback is available, and meaningful revisions are possible. If the program is sustained, professional laboratory experiences will then play the dynamic and important role in

teacher education that they are inherently designed to do. If power, opportunity, freedom, and intellectual priority are afforded to this process, we may be on the road to producing the quality professional teacher.

The educational changes and innovations cited herein are among many educational changes that are rapidly becoming a permanent part of the American educational scene. We know that for the past twenty years the educative process has been marked by change and innovations, which are in response to the public's demand for quality education. Since quality education depends to a great degree upon teaching effectiveness, it is not surprising that the largest number of major changes are in the area of teacher education. Moreover, because of the significance and promise of the concept of direct experience in teacher education, many of the innovative efforts have been in the area of professional laboratory experiences. In fact, all major educational innovations have been evaluated in terms of their expanding influence and productivity in producing good teachers. Those innovations that inherently provide for direct experience or indirectly promote it are rapidly becoming major components and essential instructional strategies of teacher education programs because programs are now being planned around educational concepts that pertain to the following: a) the active involvement of the learner, cooperative planning by all participants, and learning by doing; b) the roles and responsibilities of teachers; c) predetermined behavioral or performance objectives; and d) a process of continuous evaluation, feedback, and revision.

Other promising innovative practices that will help to expand and strengthen the role of professional laboratory experiences are community schools, individualized instruction, differentiated staffs, flexible schedules, team teaching, independent study, teacher education centers, multimedia centers, computer-assisted instruction, accountability, performance contracts, extended school year, educative programs based on behavioral objectives, creativity development, programmed learning, and the planning-programming-budgeting system.

A program of professional laboratory experiences occupies a strategic position in a program for the preparation of teachers. Sound educational and professional knowledges, attitudes, and skills cannot be acquired and mastered unless the prospective teacher goes through a planned practicum under expert supervision. The practicum provides an opportunity for the student to demonstrate educational theory in practice--scholarly knowledge develops into professional expertness. The program is based upon the concept that the preparation of teachers is a professional task which demands understanding educational theory, applying educational theory to real school settings, and evaluating teaching effectiveness in terms of teaching performances with children and youth. Therefore, the program must provide for a series of continuous, realistic, developmental, and creative experiences (under capable guidance and direction) that will focus upon the roles and tasks of teaching.

SUMMARY

Effective teaching is the goal of teacher education. A program of professional laboratory experiences is the major avenue through which students in preservice teacher education programs may become effective teachers. In this program they observe and put educational theory into practice. The development of instructional skill and a functional understanding of principles of education upon which practice should be based are the primary concerns of such a program.

Professional laboratory experiences provide opportunities for the prospective teacher to become directly involved with the processes of teaching. Through these experiences the teacher in training will acquire a functional knowledge of subject matter to be taught; instructional procedures, methods, and techniques to be used in the teaching act; the characteristics and developmental tasks of school pupils; the characteristics of effective teachers; and a functional knowledge of materials of instruction.

Professional laboratory experiences relate theory to practice through a developmental sequence of curricular experiences wherein the preservice student is involved in a wide variety of processes that focus upon demonstrating educational theory in practice as it occurs in an effective teaching/learning process. Hence, direct experience in teacher education is achieved, and the prospective teacher learns by doing.

With the advent of semiprofessionals in teacher education, the classroom teacher is functioning in the role of a director of learning. (With teacher aides and other auxiliary personnel performing many of the noninstructional tasks, the master teacher has more time to assist the prospective teacher during his observing, participating, and student teaching experiences.) The supervising classroom teacher occupies a most strategic position in a program of professional laboratory experience; he is the axis around which the program revolves. He assumes the major responsibility for the direct supervision of the prospective teacher. Now that the classroom teacher has the time to devote to his important and expanding role in professional laboratory experiences, the concept of direct experience in teacher education should realize its greatest possibilities in helping to produce a truly professional teacher.

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TEACHER EDUCATION AND ERIC

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